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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

HILDEBRANDT

SERIAL NO. 10/726,009 : Art Unit: 1725

FILED: DECEMBER 2, 2003

Examiner: Samuel M. Heinrich

FOR: PROTECTIVE GAS FOR THE

NON-VACUUM ELECTRON-BEAM WELDING OF

METALLIC MATERIALS

Hon. Commissioner of Patents

and Trademarks P. O. Box 1450

Alexandria, VA 22313-1450

REQUEST FOR RECONSIDERATION

Sir:

Reconsideration is respectfully requested of the Office Action of February 17, 2006 in view of the following.

It is respectfully submitted that claims 7-12 are not anticipated by or obvious from the Mombo-Caristan or Royle patents. Claim 7, for example, relates to a method for the non-vacuum electron-beam welding of metallic materials. The method includes as an improvement using a protective gas which consists of a gas having a temperature less than ambient temperature. Neither of the Mombo-Caristan nor Royle references discloses the temperature of the protective gas used. In the rejection the Examiner took the position that due to a decompression of the compressed gases a

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cooling would take place. Applicant does not agree with this conclusion. Neither of the

references discloses the expansion of compressed gases. Furthermore, the temperature of

the gas which is reached by the expansion strongly depends on the circumstances of the

expansion, neither of which is disclosed in Mombo-Caristan nor in Royle.

With regard to Mombo-Caristan the Examiner specifically referred to col.

9, lines 21+. That portion of Mombo-Caristan, however, describes what is illustrated in

Figure 2 including clearly pointing out that the sheets "being welded in the vicinity where

the focused <u>laser beam</u> 34 is impinging..." (emphasis added) Accordingly, what

Mombo-Caristan is concerned with is a method for "laser beam" welding, not for "non-

vacuum electron-beam welding" as defined in parent claim 7. Thus, Mombo-Caristan

could not be relied upon for any disclosure or suggestion of providing a protective gas for

electron-beam welding. The same protective gas is not disclosed for such electron beam

welding when considering the full context of Mombo-Caristan.

In view of the above it should be clear that neither Mombo-Caristan nor

Royle anticipates the invention of claim 7 and moreover, neither of those references make

any suggestions which would lead to the conclusion that claim 7 or its dependent claims

are obvious.

For the reasons submitted above this application should be passed to issue.

Respectfully Submitted,

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